



BEST AVAILABLE COPY

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/679,360	10/05/2000	Hans Carlsson	P12519-US1-BMOA	8084
24112	7590	09/09/2005	EXAMINER	
COATS & BENNETT, PLLC P O BOX 5 RALEIGH, NC 27602			MILLS, DONALD L	
			ART UNIT	PAPER NUMBER
			2662	

DATE MAILED: 09/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/679,360

Applicant(s)

CARLSSON ET AL

Examiner

Donald L. Mills

Art Unit

2662

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 June 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-57, 83 and 87-92 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 87-91 is/are allowed.
- 6) ☒ Claim(s) 1-57, 83 and 92 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-57, 83, and 87-92 are rejected under 35 U.S.C. 103(a) as being unpatentable over Raith (US 5,546,443) in view of Hill et al. (US 5,857,155), hereinafter referred to as Hill.

Regarding claims 1, 14, 27, and 92, Raith discloses a communication management technique and system for radio-telephone systems including microcells, which comprises:

Switching from the first control channel to a second control channel (Referring to Figure 4, mobile 170 switches control channels based on which channel is strongest. See column 11, lines 61-66.)

Raith does not disclose *a second control channel from which a relationship to GPS time is available; acquiring the GPS time to second control time relationship; and determining the GPS time using the relationship.*

Hill teaches utilizing GPS information to maintain synchronization at the subscriber, since the GPS information includes an accurate time (See column 4, lines 32-35.)

It would have been obvious to one of ordinary skill in the art at the time of the invention to implement the GPS receiver of Hill in the system of Raith. One of ordinary skill in the art at the time of the invention would have been motivated to do so in order to maintain proper

Art Unit: 2662

synchronization between the mobiles and base stations when simulcasting control channels as taught by Raith (See column 12, lines 20-22.)

Regarding claims 2, 15, and 28 as explained in the rejection statement of claims 1, 14, and 27; Raith and Hill teach all of the claim limitations of claims 1, 14, and 27 (parent claims).

Raith does not disclose *switching after acquiring the GPS time to second control channel time relationship, from the second control channel back to the first control channel.*

Hill teaches utilizing GPS information to maintain synchronization at the subscriber, since the GPS information includes an accurate time (See column 4, lines 32-35.)

It would have been obvious to one of ordinary skill in the art at the time of the invention to implement the GPS receiver of Hill in the system of Raith and switch channels back to the first channel when the first channel has a stronger signal. One of ordinary skill in the art at the time of the invention would have been motivated to do so in order to maintain proper synchronization between the mobiles and base stations when simulcasting control channels as taught by Raith (See column 12, lines 20-22,) and receive the control channel with the greatest signal strength.

Regarding claims 3, 16, and 29 as explained in the rejection statement of claims 1, 14, and 27; Raith and Hill teach all of the claim limitations of claims 1, 14, and 27 (parent claims).

Raith does not disclose *wherein the second control channel is a digital control channel and the first control channel is an Enhanced General Packet Radio Service packet control channel.*

Raith teaches switching between control channels depending upon the signal strength (See column 11, lines 61-66.)

Art Unit: 2662

It would have been obvious to one of ordinary skill in the art at the time of the invention to implement a DCCH and an EGPRS control channel in the system of Raith. One of ordinary skill in the art would have been motivated to do so in order to comply with GSM/EDGE standards. An added benefit of doing so would result in a smooth transition to well known standards.

Regarding claims 4, 17, 30, 43, 49, and 55, the primary reference further teaches *determining whether a preferred second control channel can be found, and switching to the preferred second control channel when the preferred second control channel can be found* (Referring to Figure 4, mobile 170 switches control channels based on which channel is strongest, in which the location of second control channel is known and then switched to when necessary. See column 11, lines 61-66.)

Regarding claims 5, 18, 31, 44, 50, and 56, the primary reference further teaches *identifying a second control channel from a pointer list when the preferred second control channel cannot be found, and switching to the identified second control channel from the pointer list* (Referring to Figure 4, mobile 170 switches control channels based on which channel is strongest, in which the location of second control channel is known in memory, a pointer, and then switched to when necessary. See column 11, lines 61-66.)

Regarding claims 6, 19, and 32 as explained in the rejection statement of claims 1, 14, and 27; Raith and Hill teach all of the claim limitations of claims 1, 14, and 27 (parent claims).

Raith does not disclose *acquiring time information associated with the second control channel*.

Art Unit: 2662

Hill teaches utilizing GPS information to maintain synchronization at the subscriber, since the GPS information includes an accurate time (See column 4, lines 32-35.)

It would have been obvious to one of ordinary skill in the art at the time of the invention to implement the GPS receiver of Hill in the system of Raith. One of ordinary skill in the art at the time of the invention would have been motivated to do so in order to maintain proper synchronization between the mobiles and base stations when simulcasting control channels as taught by Raith (See column 12, lines 20-22.)

Regarding claims 7, 20, and 33 as explained in the rejection statement of claims 1, 14, and 27; Raith and Hill teach all of the claim limitations of claims 1, 14, and 27 (parent claims).

Raith does not disclose *determining the GPS time using the relationship and acquired time information.*

Hill teaches utilizing GPS information to maintain synchronization at the subscriber, since the GPS information includes an accurate time (See column 4, lines 32-35.)

It would have been obvious to one of ordinary skill in the art at the time of the invention to implement the GPS receiver of Hill in the system of Raith. One of ordinary skill in the art at the time of the invention would have been motivated to do so in order to maintain proper synchronization between the mobiles and base stations when simulcasting control channels as taught by Raith (See column 12, lines 20-22.)

Regarding claims 8, 21, and 34 as explained in the rejection statement of claims 1, 14, and 27; Raith and Hill teach all of the claim limitations of claims 1, 14, and 27 (parent claims).

Raith does not disclose *determining prior to the switching from the first control channel to a second control channel from which a relationship to GPS time is available, a time period on the second control channel that will contain the relationship.*

Raith teaches switching between control channels depending upon the signal strength, the second control always being available (See column 11, lines 61-66.) Hill teaches utilizing GPS information to maintain synchronization at the subscriber, since the GPS information includes an accurate time (See column 4, lines 32-35.)

It would have been obvious to one of ordinary skill in the art at the time of the invention to implement the GPS receiver of Hill in the system of Raith. One of ordinary skill in the art at the time of the invention would have been motivated to do so in order to maintain proper synchronization between the mobiles and base stations when simulcasting control channels as taught by Raith (See column 12, lines 20-22.)

Regarding claims 9, 22, and 35, the primary reference further teaches *switching from the first control channel to the second control channel just prior to an occurrence of the time period* (Referring to Figure 4, switching between control channels depending upon the signal strength, the second control always being available, the switching process happening prior to the occurrence of the next power inequality between control channels. See column 11, lines 61-66.)

Regarding claims 10, 23, and 36, the primary reference further teaches *switching back to the first control channel after the occurrence of the time period* (Referring to Figure 4, switching between control channels depending upon the signal strength, the switching back to the first control channel with the signal strength of the second control channel is less than the first. See column 11, lines 61-66.)

Art Unit: 2662

Regarding claims 11, 24, and 37 as explained in the rejection statement of claims 1, 14, and 27; Raith and Hill teach all of the claim limitations of claims 1, 14, and 27 (parent claims).

Raith does not disclose *receiving the relationship in at least one broadcast message*.

Hill teaches utilizing GPS information to maintain synchronization at the subscriber, since the GPS information includes an accurate time (See column 4, lines 32-35.)

It would have been obvious to one of ordinary skill in the art at the time of the invention to implement the GPS receiver of Hill with broadcast transmission in the system of Raith. One of ordinary skill in the art at the time of the invention would have been motivated to do so in order to maintain proper synchronization between the mobiles and base stations when simulcasting control channels as taught by Raith for multiple mobiles (See column 12, lines 20-22.)

Regarding claims 12, 25, and 38 as explained in the rejection statement of claims 1, 14, and 27; Raith and Hill teach all of the claim limitations of claims 1, 14, and 27 (parent claims).

Raith does not disclose *receiving the relationship via point-to-point messaging*.

Hill teaches utilizing GPS information to maintain synchronization at the subscriber, since the GPS information includes an accurate time (See column 4, lines 32-35.)

It would have been obvious to one of ordinary skill in the art at the time of the invention to implement the GPS receiver of Hill with point-to-point transmission in the system of Raith. One of ordinary skill in the art at the time of the invention would have been motivated to do so in order to maintain proper synchronization between the mobiles and base stations when simulcasting control channels as taught by Raith for systems with a limited number of subscribers (See column 12, lines 20-22.)

Art Unit: 2662

Regarding claims 13, 26, 39, 45, 51, and 57 as explained in the rejection statement of claims 1, 14, 27, 40, 46, and 52; Raith and Hill teach all of the claim limitations of claims 1, 14, 27, 40, 46, and 52 (parent claims).

Raith does not disclose *the switching from the first control channel to the second control channel occurs in response to at least one of a timeout signal and a position request.*

Raith teaches switching between control channels depending upon the signal strength, the second control always being available (See column 11, lines 61-66.) Hill teaches utilizing GPS information to maintain synchronization at the subscriber, since the GPS information includes an accurate time (See column 4, lines 32-35.)

It would have been obvious to one of ordinary skill in the art at the time of the invention to implement the GPS receiver of Hill in the system of Raith with a time out period. One of ordinary skill in the art at the time of the invention would have been motivated to do so in order to maintain proper synchronization between the mobiles and base stations when simulcasting control channels as taught by Raith (See column 12, lines 20-22,) and ensure proper channel switching when channels become unavailable.

Regarding claims 40, 46, 52, and 83, Raith discloses a communication management technique and system for radio-telephone systems including microcells, which comprises:

Transmitting a request, the request specifying a second control channel with which the mobile terminal is associated (Referring to Figure 4, mobile 170 switches control channels based on which channel is strongest based upon a call access request. See column 11, lines 61-66.)

Raith does not disclose *a GPS time to second control channel time relationship; receiving a value indicative of the relationship between GPS time and a time for the second*

Art Unit: 2662

control channel with which the mobile terminal is associated; and determining the GPS time using the received value.

Hill teaches utilizing GPS information to maintain synchronization at the subscriber, since the GPS information includes an accurate time (See column 4, lines 32-35.)

It would have been obvious to one of ordinary skill in the art at the time of the invention to implement a request for GPS time utilizing the GPS receiver of Hill in the system of Raith. One of ordinary skill in the art at the time of the invention would have been motivated to do so in order to maintain proper synchronization between the mobiles and base stations when simulcasting control channels as taught by Raith (See column 12, lines 20-22.)

Regarding claims 41, 47, and 53 as explained in the rejection statement of claims 40, 46, and 52; Raith and Hill teach all of the claim limitations of claims 1, 14, and 27 (parent claims).

Raith does not disclose *switching, prior to the transmitting a request for a GPS time to second control channel time relationship via the first control channel, from the first control channel to the second control channel associated with the mobile terminal; measuring a time on the second control channel; and switching from the second control channel back to the first control channel.*

Raith teaches switching between control channels depending upon the signal strength, the second control always being available (See column 11, lines 61-66.) Hill teaches utilizing GPS information to maintain synchronization at the subscriber, since the GPS information includes an accurate time (See column 4, lines 32-35.)

It would have been obvious to one of ordinary skill in the art at the time of the invention to implement a channel switch prior to a request for GPS time utilizing the GPS receiver of Hill

Art Unit: 2662

in the system of Raith. One of ordinary skill in the art at the time of the invention would have been motivated to do so in order to maintain proper synchronization between the mobiles and base stations when simulcasting control channels as taught by Raith (See column 12, lines 20-22.)

Regarding claims 42, 48, and 54 as explained in the rejection statement of claims 40, 46, and 52; Raith and Hill teach all of the claim limitations of claims 1, 14, and 27 (parent claims).

Raith does not disclose *determining the GPS time using the received value and the measured time.*

Hill teaches utilizing GPS information to maintain synchronization at the subscriber, since the GPS information includes an accurate time (See column 4, lines 32-35.)

It would have been obvious to one of ordinary skill in the art at the time of the invention to implement the GPS receiver of Hill in the system of Raith. One of ordinary skill in the art at the time of the invention would have been motivated to do so in order to maintain proper synchronization between the mobiles and base stations when simulcasting control channels as taught by Raith (See column 12, lines 20-22.)

Allowable Subject Matter

3. Claims 87-91 are allowed.

Response to Arguments

4. Applicant's arguments filed June 24, 2005 have been fully considered but they are not persuasive.

Art Unit: 2662

Rejection Under 35 U.S.C. § 103

On page 2 of the remarks, regarding claims 1-57, 83, and 87-92, Applicant's arguments fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references.

Applicant's arguments do not comply with 37 CFR 1.111(c) because they do not clearly point out the patentable novelty which he or she thinks the claims present in view of the state of the art disclosed by the references cited or the objections made. Further, they do not show how the amendments avoid such references or objections.

In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Conclusion

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

Art Unit: 2662

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Donald L. Mills whose telephone number is 571-272-3094. The examiner can normally be reached on 8:00 AM to 4:30 PM.

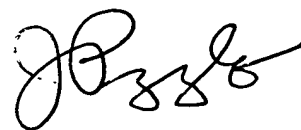
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hassan Kizou can be reached on 571-272-3088. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Donald L Mills

DLM

September 4, 2005



JOHN PEZZLO
PRIMARY EXAMINER

**This Page is Inserted by IFW Indexing and Scanning
Operations and is not part of the Official Record**

BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images include but are not limited to the items checked:

☒ **BLACK BORDERS**

☐ **IMAGE CUT OFF AT TOP, BOTTOM OR SIDES**

☐ **FADED TEXT OR DRAWING**

☐ **BLURRED OR ILLEGIBLE TEXT OR DRAWING**

☐ **SKEWED/SLANTED IMAGES**

☐ **COLOR OR BLACK AND WHITE PHOTOGRAPHS**

☐ **GRAY SCALE DOCUMENTS**

☐ **LINES OR MARKS ON ORIGINAL DOCUMENT**

☐ **REFERENCE(S) OR EXHIBIT(S) SUBMITTED ARE POOR QUALITY**

☐ **OTHER:** _____

IMAGES ARE BEST AVAILABLE COPY.

As rescanning these documents will not correct the image problems checked, please do not report these problems to the IFW Image Problem Mailbox.